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Two new species of *Plagimetriona* SPAETH from Costa Rica and Panama (Coleoptera: Chrysomelidae: Cassidinae)

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ABSTRACT. *Plagimetriona latemarginata* from Panama, and *P. costaricensis* from Costa Rica, new to the science, are described.

Key words: entomology, taxonomy, new species, *Coleoptera*, *Chrysomelidae*, *Cassidinae*, *Plagimetriona*, Costa Rica, Panama.

The genus *Plagimetriona* SPAETH, 1899 comprises hitherto 82 species, distributed in whole Neotropical Region (BOROWIEC 1999). SPAETH (1937) divided it into two subgenera and 16 groups. In my opinion, the division into subgenera is artificial, since some species have intermediate characters, and in my catalogue (BOROWIEC 1999) I synonymized *Parametriona* SPAETH, 1937 with the nominotypical subgenus. However, the groups created by SPAETH (1937) are at least partly monophyletic and very useful in taxonomical practice. In recent materials I found two new species from Costa Rica. Their descriptions are given below.

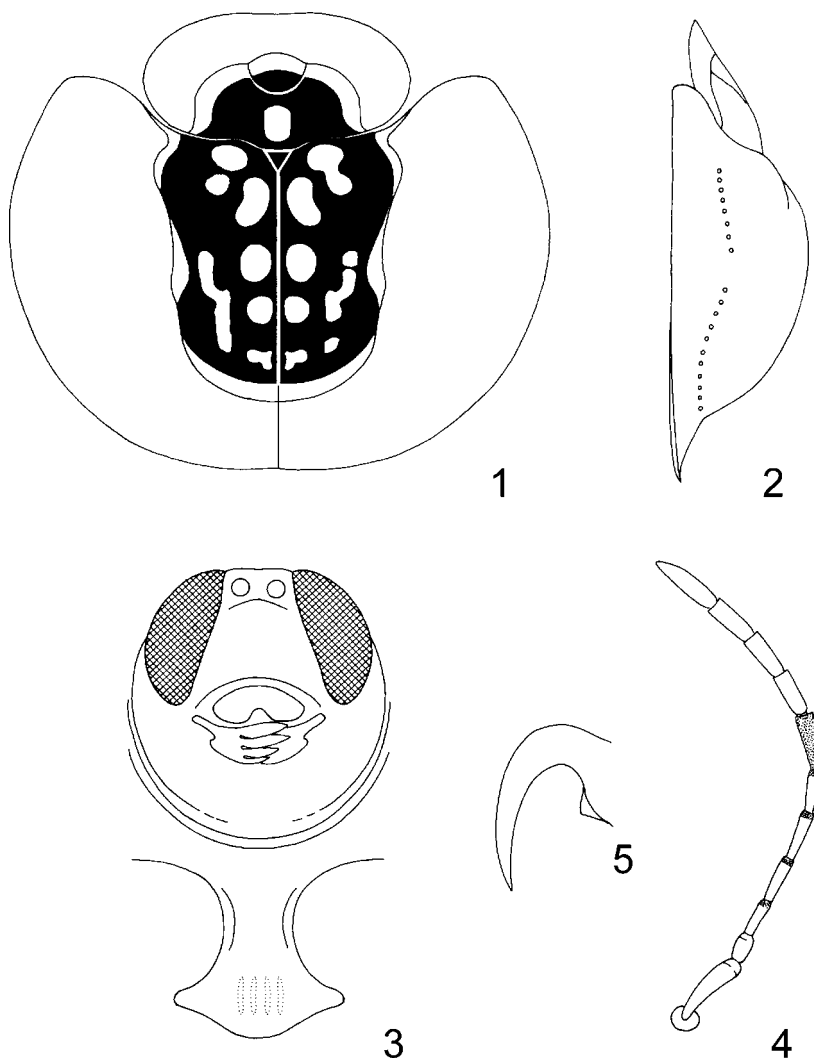
Plagimetriona latemarginata n. sp.

ETYMOLOGY

Named after its extremely broad elytral marginalia.

DIAGNOSIS

It belongs to the 3rd group of *Parametriona* in SPAETH's system, which is characterized by humeral angles moderately protruding anterad, inner margin of elytral epipleura ending before elytral apex, third antennal segment at most 1.5 times longer than second segment, elytral disc not tuberculate, and basal antennal segments with dark rings apically. The group comprises seven species. *P. latemarginata* is the largest species of the group, the only member with body



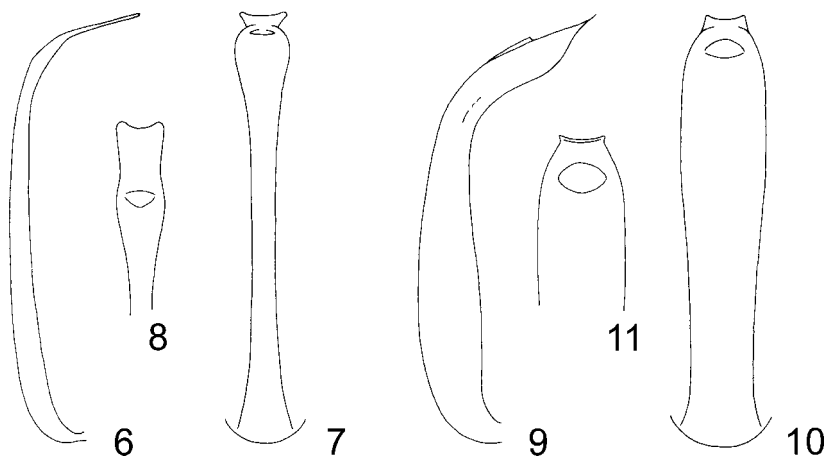
1-5. *Plagiometriona latemarginata*: 1 - body dorsal, 2 - body lateral, 3 - head and prosternum, 4 - antenna, 5 - tarsal claw

wider than long. Only *P. boschmai* Sp. and *P. latemarginata* n. sp. have 7th antennal segment darker than the neighbouring segments. Maculate form of *P. boschmai* is at first glance very similar but differs in yellow scutellum (black in *P. latemarginata*), black last antennal segments (yellow in *P. latemarginata*), and partly black abdomen (uniformly yellow in *P. latemarginata*). Pronotal spot in *P. boschmai* is uniformly black, while in *P. latemarginata* it is marked with yellow spot before scutellum, humeral angles in *P. boschmai* are distinctly angulate, in *P. latemarginata* rounded.

DESCRIPTION

Length: 9.0 mm, width: 9.8 mm, length/width ratio: 0.92, length of pronotum: 2.5 mm, width of pronotum: 4.85 mm, width/length ratio of pronotum: 1.94. Body extremely broad (fig. 1).

Pronotum yellow, disc with large basal, black, pentagonal spot, before scutellum marked by yellow elongate spot. Scutellum black. Elytral disc mostly black, except yellow marginal interval and extreme apex. Each elytron with 7-8 yellow, partly elevated spots: one at base of disc, four along suture, one large, irregular in middle of disc, and one small, round, close to first sutural spot. Large spot in the middle sometimes divided into one large and two small spots, spot in anterior part of disc sometimes coalescent with basal spot. Marginalia, head, ventrites, and legs uniformly yellow (fig. 1). Antennae mostly yellow, segments 3-6 at apex with narrow, brown ring, segment 7 infuscate, distinctly darker than segments 6 and 8, apical segments uniformly yellow, segment 8 paler yellow than remainder three apical segments.



6-11. Aedeagus: 6-8 - *Plagiometriona latemarginata*, 9-11 - *P. costaricensis*: 6, 9 - dorsal, 7, 10 - lateral, 8, 11 - apex dorsal

Pronotum regularly elliptical, with maximum width in middle, sides broadly rounded. Disc moderately convex, impunctate. Whole surface of disc and marginalia smooth and glabrous.

Scutellum triangular, without impressions. Base of elytra much wider than pronotum, humeri moderately protruding anterad, rounded. Basal margin of disc finely crenulate. Disc regularly convex (fig. 2), with small, shallow, postscutellar impressions. Punctuation of disc coarse, regular, but rows of punctures broken by partly elevated yellow, impunctate spots. First row impressed, remainder not impressed. Punctures in rows dense, distance between punctures from slightly narrower to slightly wider than puncture diameter. Intervals flat, mostly narrower than rows, only first interval in posterior part of disc wider than rows. Whole surface of disc smooth and glabrous. Marginal row distinct, in middle broken by broad lateral fold, punctures in marginal row as coarse as in central rows. Marginal interval narrow, only slightly wider than central intervals. Explanate margin extremely broad, the broadest in the genus *Plagiometriona*, horizontal, in widest part c. 1.5 times wider than each disc of elytron. Whole surface of marginalia smooth and glabrous. Apex of elytral epipleura bare.

Clypeus flat, c. 1.6 times wider than long, smooth and glabrous. Eyes large, gena very short. Labrum emarginate to 1/3 length. Prosternal process strongly expanded apically, in middle impressed, apex with few longitudinal grooves (fig. 3).

Antennae slim, filiform, last five segments dull and pubescent. Length ratio of antennal segments: 100:37:50:62:64:56:75:59:62:62:94. Segment 4 c. 1.4 times longer than 2 (fig. 4).

Claws with small basal tooth (fig. 5).

Aedeagus characteristic, very slim, with elongate apical plate, emarginate apically (figs 6-8).

TYPE MATERIAL

Holotype: "PANAMA, Cocle, 5-6 mi N El Cope, 750-850 m, 8°38'N 80°35'W, IV 1998" (preserved at the Department of Systematic Zoology and Zoogeography, University of Wrocław, Wrocław, Poland).

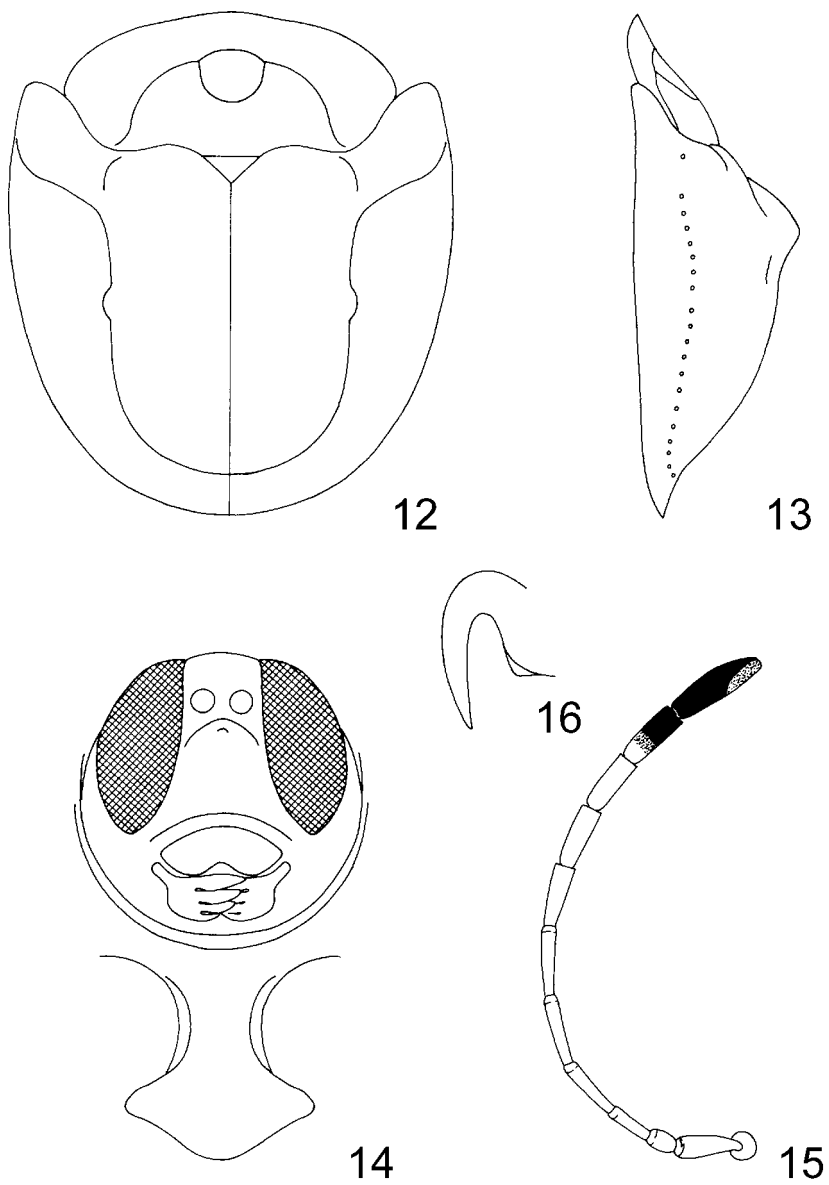
Plagiometriona costaricensis n. sp.

ETYMOLOGY

Named after its terra typica.

DIAGNOSIS

It belongs to the 3rd group of the monotypic subgenus in SPAETH's system, which is characterized by humeral angles strongly protruding anterad, inner margin of elytral epipleura ending before elytral apex, third antennal segment more than 1.5 times longer than second segment, clypeus only slightly wider than



12-16. *Plagiometriona costaricensis*: 12 - body dorsal, 13 - body lateral, 14 - head and prosthernum, 15 - antenna, 16 - tarsal claw

long, flat and without impression, and elytral disc with large postscutellar tubercle. The group comprises only two species hitherto - *P. gibbifera* (CHAMP.) and *P. superba* Sp. Both differ from *P. costaricensis* in distinct, brown to black, pattern of pronotal and elytral disc (*P. costaricensis* has pronotum immaculate, and elytra with indistinct pattern, forming narrow bands along sides of disc), and higher, much angulate postscutellar tubercle. *P. superba* differs also in larger size, with length above 11 mm, while *P. costaricensis* does not exceed 8 mm. *P. gibbifera* differs also in narrower intervals, partly broken by yellow elytral relief (in *P. costaricensis* intervals are completely regular), humeral angles slightly more protruding anterad, and slightly more emarginate elytral margin behind humeral angle. At first glance, the most similar is *P. commixta* Sp. of the 6th group of the subgenus *Parametriona* in SPAETH's system, especially in its dorsal colouration, but it differs in shorter third antennal segment, less than 1.5 times longer than segment 2 (c. 1.8 in *P. costaricensis*), antennae uniformly yellow or with only last segment infusate (two segments in *P. costaricensis*), distinctly higher and much angulate postscutellar tubercle, humeral angles less protruding anterad, and larger basal tooth of claws.

DESCRIPTION

Length: 7.1-7.9 mm, width: 6.05-6.9 mm, length/width ratio: 1.14-1.18, length of pronotum: 2.4-2.5 mm, width of pronotum: 4.5-4.85 mm, width/length ratio of pronotum: 1.88-1.94. Body very broad (fig. 12).

Pronotum uniformly yellowish, without pattern. Scutellum yellowish. Elytral disc yellowish, only submarginal interval brownish. Marginalia mostly yellowish, with brownish, broad, humeral spots, extending to lateral margin of elytra. Head, ventrites, and legs uniformly yellow. Antennae mostly yellow, segment 10 in apical 2/3 length, and last segment, except brown apex, black.

Pronotum regularly elliptical, with maximum width in middle, sides broadly rounded. Disc moderately convex, impunctate. Whole surface of disc and marginalia smooth and glabrous.

Scutellum triangular, without impressions. Base of elytra much wider than pronotum, humeri strongly protruding anterad, angulate. Elytral margin behind humeral angle shallowly emarginate. Basal margin of disc finely crenulate. Disc with conical but blunt postscutellar tubercle (fig. 13). Punctuation of disc coarse, completely regular. Four sutural rows slightly impressed. Punctures in rows dense, distance between punctures mostly narrower than puncture diameter only in posterolateral part of disc punctures sparser, with distance between punctures slightly wider than puncture diameter. Intervals in sutural half of disc slightly convex, slightly wider than rows, in lateral part of disc flat, slightly narrower than rows. Whole surface of disc smooth and glabrous. Marginal row distinct, in middle not broken by lateral fold, punctures in marginal row as coarse as in central rows. Marginal interval moderately broad, c. twice wider than central intervals. Explanate margin broad, in widest part as wide as 3/4 width of each disc

of elytron. Whole surface of marginalia smooth and glabrous. Apex of elytral epipleura bare.

Clypeus flat, only slightly elevated before antennal insertions, c. 1.3 times wider than long, smooth and glabrous. Eyes large, gena very short. Labrum emarginate to 1/4 length. Prosternal process strongly expanded apically, in middle only shallowly impressed, apex smooth (fig. 14).

Antennae slim, filiform, last five segments dull and pubescent. Length ratio of antennal segments: 100:41:75:108:116:112:100:100:96:100:167. Segment 4 c. 1.8 times longer than 2 (fig. 15).

Claws with small basal tooth (fig. 16).

Aedeagus little characteristic, without modified apical plate, shallowly emarginate apically (figs 9-11).

TYPE MATERIAL

Holotype: "COSTARICA, Orori"; paratype: the same data (both preserved at the Department of Systematic Zoology and Zoogeography, University of Wrocław, Wrocław, Poland).

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